TOWN OF DAVIE
TOWN COUNCIL AGENDA REPORT

TO: Mayor and Councilmembers

FROM/PHONE: Ken Cohen, Acting Town Administrator / 797-1030
Prepared By: Phillip R. Holste, CFM, Program Manager / 797-1041

SUBJECT: Resolution

TITLE OF AGENDA ITEM: A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA, AUTHORIZING THE MAYOR TO EXECUTE A LEASE AMENDMENT TO AN EXISTING LEASE AGREEMENT BETWEEN THE TOWN OF DAVIE AND AMERICAN TOWER CONCERNING THE MONOPOLE TELECOMMUNICATIONS TOWER LOCATED AT 3800 SW 92 AVENUE; AND PROVIDING FOR AN EFFECTIVE DATE.

REPORT IN BRIEF: On November 19, 1997, the Town signed an agreement (R97-407) with Omnipoint Communication DEF Operation, Incorporated to lease space for a monopole cellular tower at Pine Island Park, 3800 SW 92 Avenue. Subsequently, Omnipoint was purchased by American Tower Delaware Corporation. This initial agreement allowed two additional co-locations on the monopole and stated that the Town would receive 50% of co-location revenue.

On May 16, 2001, a first amendment to the initial agreement was approved (R2001-126). This amendment modified the initial agreement by leasing an additional 240 square feet to American Tower. Additionally, the amendment gave consent to the co-location of AT&T on the monopole. On May 16, 2001, a second amendment to the initial agreement was approved (R2001-127). This amendment gave consent to the co-location of MetroPCS on the monopole.

The proposed third amendment leases an additional 550 square feet of ground space to American Tower and grants permission to American Tower for an additional carrier on the existing monopole at Pine Island Park. The Engineering division has reviewed and accepts the structural analysis provided as Exhibit C of the third amendment. At this time, American Tower does not have a signed agreement with the proposed fourth carrier. Therefore, this amendment gives the Town Council final approval of any collocation agreement between American Tower and any future carrier.

PREVIOUS ACTIONS: R97-407 (Original Lease Agreement), R2001-126 (First Amendment), R2001-127 (Second Amendment)

CONCURRENCES: Not Applicable

FISCAL IMPACT: The Town will receive 50% of co-location revenue.

RECOMMENDATION(S): Motion to approve the resolution

Attachment(s):
Resolution; Third Amendment to lease agreement

ITEM 4.4

RESOLUTION _____

A RESOLUTION OF THE TOWN OF DAVIE, FLORIDA, AUTHORIZING THE MAYOR TO EXECUTE A LEASE AMENDMENT TO AN EXISTING LEASE AGREEMENT BETWEEN THE TOWN OF DAVIE AND AMERICAN TOWER CONCERNING THE MONOPOLE TELECOMMUNICATIONS TOWER LOCATED AT 3800 SW 92 AVENUE; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, LESSOR and OMNIPOINT entered into that certain Lease Agreement ("Agreement") dated November 19, 1997, which by this reference is incorporated herein and made a part hereof, whereby LESSOR leased to OMNIPOINT that certain real property in Broward County, Florida, located at Parcel "A", of the Pine Island Park, according to the Plat thereof, as recorded in Plat Book 139, page 28, of the Public Records of Broward County, Florida, more specifically described in and substantially shown as outlined on Exhibit "A" attached hereto and made a part hereof ("Property"); and

WHEREAS, LESSOR and TENANT previously amended the Agreement pursuant to the First Amendment to the Lease Agreement dated May 16, 2001 to allow for additional leased area and to approve a sublease between American Tower and AT&T ; and

WHEREAS, LESSOR and TENANT previously amended the Agreement pursuant to the Second Amendment to the Lease Agreement dated May 16, 2001 to approve a sublease between American Tower and MetroPCS; and

WHEREAS, LESSOR and TENANT desire to amend the Lease to allow for four carriers on the tower rather than three carriers and increase the leased area to 1,990 square feet.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF DAVIE, FLORIDA.

SECTION 1. That the recitals set forth above are true and correct and are made a part of this resolution.

SECTION 2. The Town Council of the Town of Davie hereby approves the aforementioned amendment and authorizes the Mayor to execute the proposed third amendment, a copy of which is attached as Exhibit "A", on behalf of the Town

SECTION 3. This resolution shall take effect immediately upon its passage and adoption.

PASSED AND ADOPTED THIS _____ DAY OF_____ , 2006.

_____
MAYOR/COUNCILMEMBER

ATTEST:

TOWN CLERK
APPROVED THIS _____ DAY OF _____ , 2006

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE ("Third Amendment") is entered into on the _____ day of _____, 2006, by and between **Town of Davie**, a municipal corporation of the State of Florida (hereinafter referred to as "Lessor") and **Unisite/Omnipoint FL Tower Venture, LLC.**, a Delaware corporation, its successors and/or assigns (hereinafter referred to as "Lessee").

WITNESSETH:

WHEREAS, Lessor and Omnipoint Communications DEF Operations, Inc. predecessor-in-interest to Lessee, executed and entered into that certain Lease Agreement dated November 19, 1997 as amended by that certain First Amendment to Lease Agreement dated June 12, 2001 and that certain Second Amendment to Lease Agreement dated June 12, 2001 (collectively, the "Lease"), for the purpose of installing, operating and maintaining a communications facility and other improvements on the Site (as described in Exhibit A attached hereto and incorporated by reference herein); and

WHEREAS, Lessor and Lessee desire to amend certain provisions in the Lease.

NOW, THEREFORE, in consideration of the mutual covenants and promises contained in this Agreement, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties, Lessor and Lessee hereby agree and contract as follows:

1. Lessor hereby leases to Lessee an additional 550 square feet contiguous to the leased area as set forth on Exhibit B attached hereto and incorporated by reference herein. Lessor and Lessee hereby agree that the new total leased area will be 1990 square feet. Lessor agrees to cooperate with Lessee as necessary to obtain appropriate zoning, permitting and government approvals. This shall include, but is not limited to, additional uses of Lessor's property as needed to meet any jurisdictional fall zone and other tower related stipulations.

2. Pursuant to the terms of the Lease, as consideration for use of the additional ground space comprised of 550 square feet contiguous to the leased area, Lessee shall pay to Lessor fifty percent (50%) of the gross receipts derived from adding additional tenants to the tower site by utilizing this area. Additionally, Lessee hereby agrees to provide to Lessor, upon request, copies of any tenant agreements for the telecommunications facility as they are directly related to their proportionate share of the revenue received by Lessee. Lessee hereby acknowledges that Lessor (specifically the Town Council) is to have final approval with regard to any collocation agreement between Unisite/Omnipoint FL Tower Venture, LLC and Verizon or any other future carrier and this Third Amendment is contingent upon such approval by the Davie Town Council.

3. Pursuant to Paragraph 7 and Paragraph 17 of the Lease, Lessor hereby consents to the addition of another wireless carrier to the tower, Verizon, and Lessee hereby affirms that as of the date of this Third Amendment Verizon's proposed rental rate is to be Two Thousand Four Hundred and No/Dollars ($2400.00) per month, of which fifty percent (50%) of the receipt of would benefit Lessor upon the commencement of Verizon's sublease taking effect at the Site.

4. The Notice language contained in Paragraph 18 is deleted in its entirety and replaced with: "**Notices.** All notices must be in writing and shall be valid upon receipt when delivered by hand,

by nationally recognized courier service, signed receipt requested, or by First Class United States mail, certified, return receipt requested, addressed as follows:

Lessor:	_____ _____ _____ _____
Lessee:	American Tower 10 Presidential Way Woburn, MA 01801 Attn: Land Management
With a copy to:	American Tower 116 Huntington Ave. Boston, MA 02116 Attn: Legal

The parties may substitute recipient's names and addresses by giving at least thirty (30) days notice. Rejection or refusal to accept delivery of any notice, or the inability to deliver any notice because of a changed address of which no notice was given, shall be deemed to be receipt of any such notice."

5. Lessor grants to Lessee the right to install and maintain during the Term of this Lease identifying signs or other types of signs required by any governmental authority on or along any access road to the Site, including, if necessary, signs visible from the nearest public street, at locations where an access road diverges, or if an obstruction obscures visibility of the Site and Improvements. Lessee agrees to minimize the size of such signs as reasonably required for readability and compliance with regulations or directives of any governmental authority.

6. Lessor hereby acknowledges receipt, review and acceptance of the structural analysis of the telecommunications facility a copy of which is attached hereto as Exhibit C.

7. Lessee hereby agrees to comply with the current landscaping code of the Town of Davie and to install a proper landscaping buffer around the compound. Lessee additionally agrees to comply with all current zoning requirements.

8. Lessee hereby agrees to make best efforts to ensure that future collocations on the tower will be flush-mounted and they will have their own generator on-site and a contract for fuel delivery in the event of a disaster.

9. Lessor represents and warrants that as of the date of this execution, there are no uncured defaults under the terms of the Lease and that the Lease is in full force and effect.

10. All other terms of the Lease except as may be amended herein, or as may be in conflict with the provisions of this Third Amendment, shall be deemed incorporated into this Third Amendment.

11. Except as amended herein, all terms, conditions, provisions, covenants and agreements contained in the Lease are hereby ratified and confirmed in their entirety. The terms used herein and not otherwise defined in this Third Amendment shall have the same meaning as set forth in the Lease.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals on the day first above written.

LESSOR:

Town of Davie

_____
By:
Its:

WITNESSES:

_____
Print Name:

_____
Print Name:

LESSEE:

Unisite/Omnipoint FL Tower Venture, LLC
By: Unisite, LLC, its manager

_____
Jason D. Hirsch
Director, Land Management

_____
Print Name:

_____
Print Name:

[SIGNATURES NEXT PAGE]

ACKNOWLEDGEMENT

LESSOR:

STATE OF FLORIDA

COUNTY OF _____

The foregoing instrument was acknowledged before me this _____ (date) by _____ (name and title of officer) of _____, a _____ (state) corporation, on behalf of the corporation. He/she is personally known to me or has produced _____ (type of identification) as identification.

_____

Notary Public

Printed Name: _____

My Commission Expires:

_____

Commission # _____

LESSEE:

COMMONWEALTH OF MASSACHUSETTS)
) ss:
COUNTY OF MIDDLESEX)

Then personally appeared the said, Jason D. Hirsch of Unisite/Omnipoint FL Tower Venture, LLC. as aforesaid, signer and sealer of the foregoing instrument, and acknowledged the same to be his/her free act and deed as Director, Land Management of Unisite/Omnipoint FL Tower Venture, LLC. and the free act and deed of said limited liability company, before me.

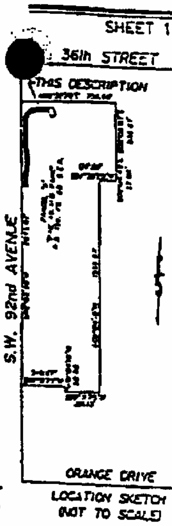
_____
Notary Public
My Commission Expires:

EXHIBIT A

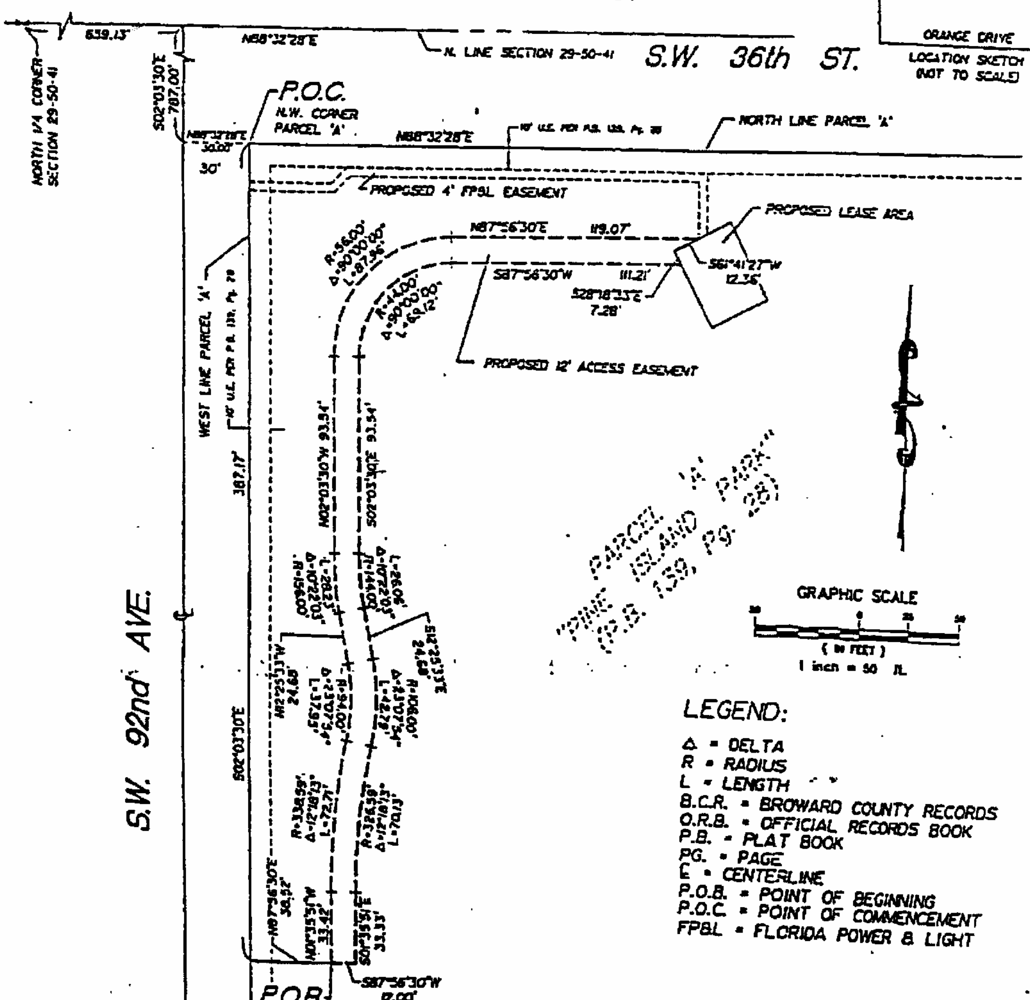
A PORTION OF PARCEL 'A', "PINE ISLAND PARK" ACCORD... THE PLAT THEREOF AS RECORDED IN PLAT BOOK 139, PAGE 28 OF THE PUBLIC RECORDS OF BROWARD COUNTY, FLOR... ...D PORTION BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHWEST CORNER OF SAID PARCEL 'A'; THENCE ALONG THE WEST LINE OF SAID PARCEL 'A' SOUTH 02°03'30" EAST (PLAT BEARING) 387.17 FEET; THENCE NORTH 87°56'30" EAST 38.52 FEET TO THE POINT OF BEGINNING; THENCE NORTH 01°35'51" WEST 33.42 FEET TO A POINT OF CURVATURE OF A 338.59 FOOT RADIUS CURVE CONCAVE TO THE EAST; THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 12°18'13" AN ARC DISTANCE OF 72.71 FEET TO A POINT OF REVERSE CURVATURE OF A 94.00 FOOT RADIUS CURVE CONCAVE TO THE WEST; THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 23°07'34" AN ARC DISTANCE OF 37.95 FEET TO A POINT OF TANGENCY; THENCE NORTH 12°25'33" WEST 24.68 FEET TO A POINT OF CURVATURE OF A 156.00 FOOT RADIUS CURVE CONCAVE TO THE EAST; THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 10°22'03" AN ARC DISTANCE OF 28.23 FEET TO A POINT OF TANGENCY; THENCE NORTH 02°03'30" WEST 93.54 FEET TO A POINT OF CURVATURE OF A 56.00 FOOT RADIUS CURVE CONCAVE TO THE SOUTHEAST; THENCE NORTHEASTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00" AN ARC DISTANCE OF 87.96 FEET TO A POINT OF TANGENCY; THENCE NORTH 87°56'30" EAST 119.07 FEET; THENCE SOUTH 61°41'27" WEST 12.26 FEET; THENCE SOUTH 28°18'33" EAST 7.28 FEET; THENCE SOUTH 87°56'30" WEST 111.21 FEET TO A POINT OF CURVATURE OF A 44.00 FOOT RADIUS CURVE CONCAVE TO THE SOUTHEAST; THENCE SOUTHWESTERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00" AN ARC DISTANCE OF 69.12 FEET TO A POINT OF TANGENCY; THENCE SOUTH 02°03'30" EAST 93.54 FEET TO A POINT OF CURVATURE OF A 144.00 FOOT RADIUS CURVE CONCAVE TO THE EAST; THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 10°22'03" AN ARC DISTANCE OF 26.06 FEET TO A POINT OF TANGENCY; THENCE SOUTH 12°25'33" EAST 24.68 FEET TO A POINT OF CURVATURE OF A 106.00 FOOT RADIUS CURVE CONCAVE TO THE WEST; THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 23°07'34" AN ARC DISTANCE OF 42.79 FEET TO A POINT OF REVERSE CURVATURE OF A 326.59 FOOT RADIUS CURVE CONCAVE TO THE EAST; THENCE SOUTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 12°18'13" AN ARC DISTANCE OF 70.13 FEET TO A POINT OF TANGENCY; THENCE SOUTH 01°35'51" EAST 33.33 FEET; THENCE SOUTH 87°56'30" WEST 12.00 FEET TO THE POINT OF BEGINNING.

SAID LANDS SITUATE, LYING, AND BEING IN THE TOWN OF DAVIE, BROWARD COUNTY, FLORIDA.



LOCATION SKETCH (NOT TO SCALE)



LEGEND:

Δ = DELTA
R = RADIUS
L = LENGTH
B.C.R. = BROWARD COUNTY RECORDS
O.R.B. = OFFICIAL RECORDS BOOK
P.B. = PLAT BOOK
PG. = PAGE
℄ = CENTERLINE
P.O.B. = POINT OF BEGINNING
P.O.C. = POINT OF COMMENCEMENT
FP&L = FLORIDA POWER & LIGHT

SKETCH AND DESCRIPTION

THIS SKETCH DOES NOT REPRESENT A BOUNDARY SURVEY

CERTIFIED TO:
PACIFIC 17 COMMUNICATIONS
LAW ENGINEERING

I HEREBY CERTIFY THAT THIS SKETCH MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 61G17-6, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

DATED THIS 13th DAY OF NOVEMBER 1997 A.D.

WILLIAM M. LYNCH
PROFESSIONAL SURVEYOR AND MAPPER
STATE OF FLORIDA REGISTRATION No. 4068
NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

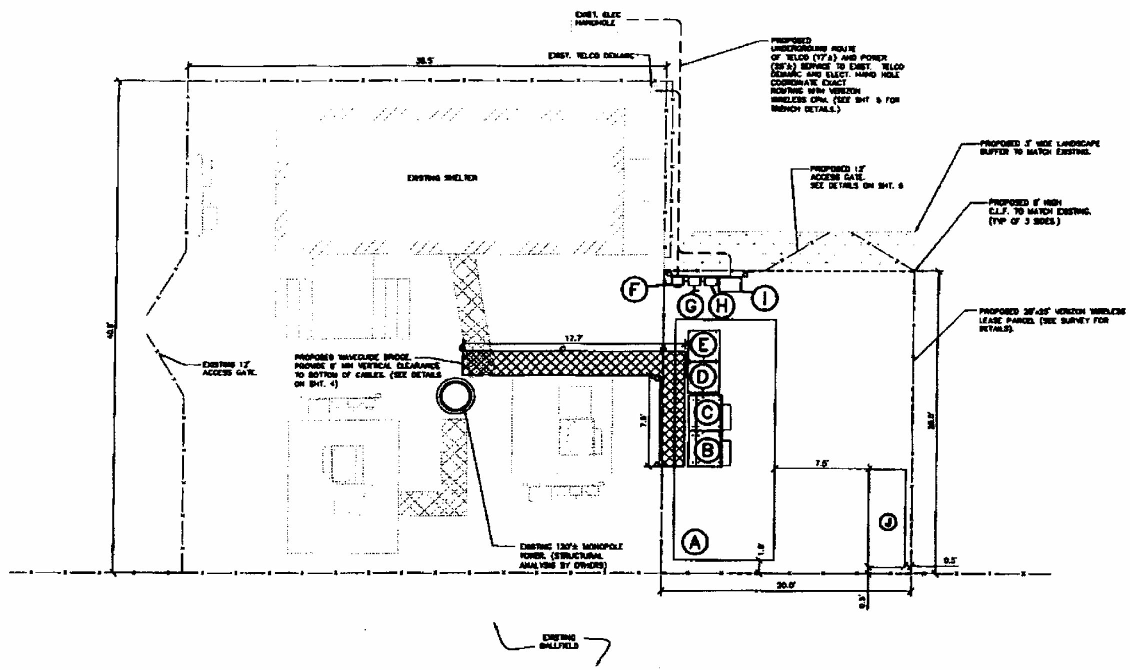
MILLER LEGG
ENGINEERS • PLANNERS
LAND SURVEYORS
ENVIRONMENTAL PROFESSIONALS
1800 N. DOUGLAS ROAD, SUITE 200
PEMBROKE PINES, FLORIDA 33024
(954)436-7000 FAX: (954)437-3934
CERT. OF AUTHORIZATION LB 6680

REVISIONS		

DRAWN BY: CDC | CHECKED BY:

PROJECT NO. 7365-01 301 | FILE NO.

EXHIBIT B



SITE PLAN

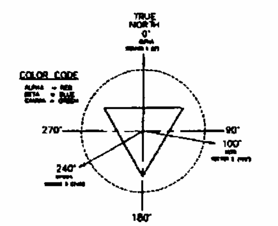
SCALE FEET

LEGEND

- (A) PROPOSED 8'x20' CONC. SLAB W/ RADIO EQUIPMENT PLATFORM TOP OF SLAB EL. 0.5'± AGL. (SEE PAD DETAIL, SHEET 4)
- (B) FUTURE MOD CELL GROWTH (BY OTHERS)
- (C) PROPOSED PRIMARY MOD CELL (BY OTHERS)
- (D) PROPOSED EMERGENCY GENERATOR OR BATTERY BACK-UP (BY OTHERS)
- (E) FUTURE BATTERY CABINET (BY OTHERS)
- (F) ELECTRIC METER AND DISCONNECT SWITCH MOUNTED BELOW METER (SEE ELECTRICAL SHEETS FOR DETAIL)
- (G) MANUAL TRANSFER SWITCH (SEE ELECTRICAL SHEETS FOR DETAIL)
- (H) ELECTRIC LOAD CENTER (SEE ELECTRICAL SHEET FOR DETAIL)
- (I) 64" H. x 35" W. TELCO BOX (SEE ELECTRICAL SHEETS FOR DETAILS)
- (J) PROPOSED 3'x8' CONCRETE PAD FOR FUTURE EQUIPMENT (SEE SHT. 3 FOR DETAILS)

SECTOR	ANTENNA TYPE	℄ EL.	MECH DOWNTILT	AZ°	TTLNA's
ALPHA 1	[illegible]	100'±	0°	30°	NO
BETA 2	[illegible]	100'±	0°	210°	NO
GAMMA 3	[illegible]	100'±	0°	300°	NO

CONTRACTOR SHALL USE SURVEY INFORMATION TO ALIGN ORIENTATION OF ANTENNA SUPPORT STRUCTURE(S) WITH BEARINGS SHOWN IN DIAGRAM ABOVE.



COLOR CODE

ANTENNA ORIENTATION DIAGRAM

NOT TO SCALE

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW
1-800-432-4770

verizon

PROJECT INFORMATION:

BAMFORD SPORTS COMPLEX
SITE # 61302
3800 SW 92ND AVE
DAVIE, FL 33328
BROWARD COUNTY

CURRENT ISSUE DATE: FEBRUARY 2006

ISSUED FOR: PRELIMINARY DRAWINGS

REV.: DATE: DESCRIPTION:

SEAL:

PLANS PREPARED BY:

Kimley-Horn and Associates, Inc.
4431 EMBARCADERO DR
WEST PALM BEACH, FLORIDA 33407
(561) 845-0665

PROJECT DATA:

DRAWN BY: KBM CHK.: GAA APV.: CRT

LICENSURE:

SHEET TITLE: SITE PLAN

SHEET NUMBER: 3 OF 6

KHA Job #: 044047485

EXHIBIT C

Exhibit C

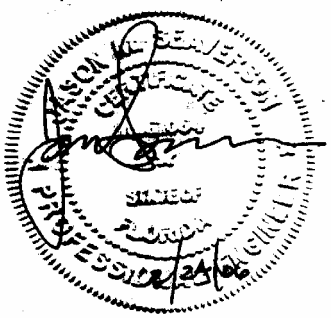
AMERICAN TOWER

Structural Analysis Report

Structure	:	**120 ft Newmark Concrete Monopole**
ATC Site Name	:	**Bamford Sports Complex, FL**
ATC Site Number	:	**091542**
Proposed Carrier	:	**Verizon Wireless**
Carrier Site Name	:	**ATC Bamford Sports Complex**
Carrier Site Number	:	**91542**
County	:	**Broward**
Eng. Number	:	**25817421**
Date	:	**February 23, 2006**
Usage	:	**104**

Submitted by:
Bryan Lanier, P.E.
Project Engineer

Reviewed by:
Jason M. Seaverson, P.E.
Engineering Manager



American Tower Engineering Services
400 Regency Forest Drive
Cary, NC 27511
Phone: 919-468-0112

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 120 ft Newmark Concrete Monopole located at 3800 Southwest 92nd Avenue, Davie, FL 33328, Broward County (ATC site # 91542). The tower was originally designed and manufactured by Newmark (Fabrication #s 98010-1B & 98010-1T, dated February 16, 1998).

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 140 (3-Second Gust), Exposure C
Radial Ice: No ice loading considered
Code: TIA/EIA-222-G / 2004 Florida Building Code

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
120	6	EMS RR90-17	Side Arm	(12) 1-1/4"	Voicestream
100	6	Decibel DB950G65	Low Profile Platform	(6) 1-5/8"	Metro PCS
76	3	Allgon 7721	T-Arm	(15) 7/8"	AT&T
	3	EMS FS90-09-00DA2			
	6	Lucent KS-24592.L1			
60	14	Field Sport Lights	Frame	(1) 1/4"	-

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
110	6	Antel BSA-185065/12	Low Profile Platform	(12) 1-5/8"	Verizon

Verizon's proposed coax can be installed on the outside of the monopole shaft.

Results

The maximum structure usage is: 104 % (Overstress considered acceptable)

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Axial (kip)	65.0	43.3	67
Shear (kip)	21.1	19.6	93
Moment (ft-kip)	1615.4	1654.8	102

The structure base reactions resulting from the analysis are within acceptable usage parameters when compared to the reactions shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Conclusion

Based on the analysis results, the structure meets the requirements per TIA/EIA-222-G and 2004 Florida Building Code requirements.

The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.

If you have any questions or require additional information, please call 919-466-5777.

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and are in an un-corroded condition and have not deteriorated; and we, therefore, assume that their capacity has not significantly changed from the "as new" condition.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Engineering Services is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Site Number:
Site Name:
Engineer:
Date:

Code Input: 2004 Florida Building Code / TIA/EIA-222-G

Design Windspeed:	mph	K_D:	1.00
G_H:	0.85	K_{ZT}:	1.00
C_F:		Importance:	
% Ice Pressure:		Exposure (B/C):	
Radial Ice:	in		
Load Factor:			

Prestressing Strands Input:

P_E - 1:		k (per strand)
$A_{Strands}$ - 1:		in^2
$\#_{Strands}$ - 1:		
P_E - 2:		k (per strand)
$A_{Strands}$ - 2:		in^2
$\#_{Strands}$ - 2		

Tower Geometry Input:

Height of Section1:	ft	ϕ - Bottom Sec. 1:	in	ϕ - Bottom Sec. 2:	in	Concrete Properties Input:	
Height of Section 2:	ft	ϕ - Top Sec. 1:	in	ϕ - Top Sec. 2:	in	f'_C:	psi
Tower Height:	ft	T - Bottom Sec. 1:	in	T - Bottom Sec. 2:	in	w_C:	pcf
		T - Top Sec. 1:	in	T - Top Sec. 2:	in	E_C:	5381.8 ksi
						f'_R:	821.6 psi

Antenna/Mount Input & Corresponding Loads

Antenna (Name & Man.)	Height (in)	Width (in)	Depth (in)	Round /Flat (R/F)	Weight (lb)	Total	Redu. Factor	Elev. (ft)	C_A	Weight Ice (lb)	C_AA_C Bare (ft^2)	C_AA_C Ice (ft^2)	Wt. Bare (lb)	Wt. Ice (lb)
									1.40	18.0	14.2	14.2	108.0	108.0
									1.54	10.6	18.3	18.3	63.6	63.6
									1.40	16.0	33.9	33.9	96.0	96.0
									1.43	22.2	8.6	8.6	66.6	66.6
									1.40	27.0	13.4	13.4	81.0	81.0
									1.40	15.0	3.9	3.9	90.0	90.0
									0.00	0.0	0.0	0.0	0.0	0.0
									0.00	0.0	0.0	0.0	0.0	0.0

Mount (Type)	C_AA_C Bare (ft^2)	C_AA_C Ice (ft^2)	Weight Bare (lb)	Weight Ice (lb)	Elev. (ft)	ΣC_AA_C Bare (ft^2)	ΣC_AA_C Ice (ft^2)	K_Z	Q_Z (psf)	F_C Bare Load (k)	F_C Ice Load (k)	Σ Wt. Bare (lb)	Σ Wt. Ice (lb)
					120.0	19.2	19.2	1.315	65.99	1.08	0.00	358.0	358.0
					110.0	43.3	43.3	1.291	64.79	2.38	0.00	1563.6	1563.6
					100.0	58.9	58.9	1.266	63.50	3.18	0.00	1596.0	1596.0
					76.0	23.6	23.6	1.195	59.94	1.20	0.00	816.6	816.6
					76.0	13.4	13.4	1.195	59.94	0.68	0.00	81.0	81.0
					76.0	3.9	3.9	1.195	59.94	0.20	0.00	90.0	90.0
					60.0	20.0	20.0	1.137	57.03	0.97	0.00	500.0	500.0
					0.0	0.0	0.0	0.000	0.00	0.00	0.00	0.0	0.0

Site Number: 91942
Site Name: Bamford Sports Complex, FL
Engineer: BKL
Date: 02/22/06
Code Input: 2004 Florida Building Code & TIA/EIA-222-G

Tower Input & Corresponding Loads

Tower (from-to) (ft)	ϕ_{Bottom} (in)	ϕ_{Top} (in)	C_AA_A (ft^2)	W_{Coax} (lb/ft)	$\phi_{Average}$ (in)	Thk (in)	Inertia (in^4)	K_z	Q_z (psf)	F_{Bare} (k)	F_{Ice} (k)	Wt. Bare (lb)	Wt. Ice (lb)	Area (in^2)
4.00	40.48	39.62			40.05	4.33	78662	0.85	42.59	0.393	0.000	2068.4	2068.4	486.2
8.00	39.62	38.75			39.18	4.29	72620	0.85	42.59	0.387	0.000	2003.0	2003.0	470.0
12.00	38.75	37.89			38.32	4.24	66925	0.85	42.59	0.381	0.000	1938.5	1938.5	453.9
16.00	37.89	37.85			37.87	4.24	64372	0.85	42.59	0.377	0.000	1915.6	1915.6	448.3
20.00	37.85	36.99			37.42	4.20	61397	0.88	44.26	0.389	0.000	1873.9	1873.9	437.9
24.00	36.99	36.13			36.56	4.15	56357	0.92	46.17	0.399	0.000	1811.0	1811.0	422.3
28.00	36.13	35.26			35.69	4.10	51628	0.95	47.82	0.406	0.000	1749.0	1749.0	406.9
32.00	35.26	34.40			34.83	4.05	47195	0.98	49.29	0.411	0.000	1688.1	1688.1	391.8
36.00	34.40	33.53			33.97	4.00	43048	1.01	50.60	0.415	0.000	1628.1	1628.1	376.9
40.00	33.53	32.67			33.10	3.96	39174	1.03	51.80	0.417	0.000	1569.1	1569.1	362.2
44.00	32.67	31.81			32.24	3.91	35560	1.05	52.90	0.418	0.000	1511.1	1511.1	347.8
48.00	31.81	30.94			31.37	3.86	32197	1.07	53.93	0.418	0.000	1454.1	1454.1	333.7
52.00	30.94	30.08			30.51	3.81	29071	1.09	54.88	0.418	0.000	1398.1	1398.1	319.8
56.00	30.08	29.21			29.65	3.76	26173	1.11	55.78	0.416	0.000	1343.1	1343.1	306.1
60.00	29.21	28.35			28.78	3.72	23492	1.13	56.62	0.414	0.000	1289.0	1289.0	292.7
64.00	28.35	27.49			27.92	3.67	21016	1.14	57.42	0.412	0.000	1235.0	1235.0	279.5
68.00	27.49	26.62			27.05	3.62	18735	1.16	58.18	0.409	0.000	1182.9	1182.9	266.6
72.00	26.62	25.76			26.19	3.57	16640	1.17	58.91	0.405	0.000	1131.8	1131.8	253.9
76.00	25.76	24.89			25.33	3.53	14720	1.19	59.60	0.401	0.000	1081.7	1081.7	241.5
80.00	24.89	24.03			24.46	3.48	12967	1.20	60.27	0.348	0.000	1012.8	1012.8	229.3
84.00	24.03	23.17			23.60	3.43	11370	1.21	60.91	0.343	0.000	964.7	964.7	217.3
88.00	23.17	22.30			22.73	3.38	9920	1.23	61.52	0.337	0.000	917.5	917.5	205.6
92.00	22.30	21.44			21.87	3.33	8609	1.24	62.11	0.331	0.000	871.4	871.4	194.2
96.00	21.44	20.57			21.01	3.29	7428	1.25	62.68	0.325	0.000	826.2	826.2	183.0
100.00	20.57	19.71			20.14	3.24	6368	1.26	63.23	0.319	0.000	782.1	782.1	172.0
104.00	19.71	18.85			19.28	3.19	5422	1.27	63.77	0.312	0.000	719.2	719.2	161.3
108.00	18.85	17.98			18.41	3.14	4582	1.28	64.29	0.305	0.000	677.0	677.0	150.8
112.00	17.98	17.12			17.55	3.10	3840	1.29	64.79	0.193	0.000	596.4	596.4	140.6
116.00	17.12	16.25			16.69	3.05	3188	1.30	65.28	0.185	0.000	556.2	556.2	130.6
120.00	16.25	15.39			15.82	3.00	2619	1.31	65.76	0.177	0.000	517.0	517.0	120.8

Unfactored Tower Loads & Deflections

Site Number: 91542
Site Name: Barnford Sports Complex, FL
Engineer: BKL
Date: 02/22/06
Code Input: 2004 Florida Building Code & TIA/EIA-222-G

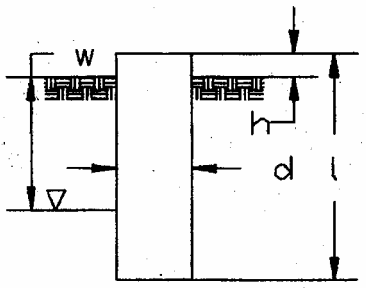
Elevation (ft)	Weight Bare (k)	Shear Bare (k)	$M_{Lateral}$ Bare (k-ft)	$M_{P\Delta}$ Bare (k-ft)	M_{Total} Bare (k-ft)	Δ Bare (in)	Weight Iced (k)	Shear Ice (k)	$M_{Lateral}$ Ice (k-ft)	$M_{P\Delta}$ Ice (k-ft)	M_{Total} Iced (k-ft)	Δ Iced (in)	M_{cr} (k-ft)	M_o (k-ft)
0	43.3	19.6	1524.5	130.3	1654.8	0.0	43.3	0.0	0.0	0.0	0.0	0.0	907.6	638.6
4.00	41.2	49.2	1443.0	129.8	1572.8	0.2	41.2	0.0	0.0	0.0	0.0	0.0	877.2	623.4
8.00	39.2	18.8	1363.2	128.3	1491.5	0.6	39.2	0.0	0.0	0.0	0.0	0.0	847.3	608.2
12.00	37.3	18.4	1284.9	125.9	1410.8	1.4	37.3	0.0	0.0	0.0	0.0	0.0	832.2	599.4
16.00	35.4	18.0	1208.1	122.7	1330.8	2.5	35.4	0.0	0.0	0.0	0.0	0.0	619.5	394.8
20.00	33.5	17.7	1132.8	118.9	1251.6	3.8	33.5	0.0	0.0	0.0	0.0	0.0	595.8	384.7
24.00	31.7	17.3	1059.1	114.4	1173.5	5.5	31.7	0.0	0.0	0.0	0.0	0.0	572.7	374.6
28.00	30.0	16.9	987.0	109.4	1096.4	7.5	30.0	0.0	0.0	0.0	0.0	0.0	550.0	364.5
32.00	28.3	16.4	916.5	103.9	1020.4	9.9	28.3	0.0	0.0	0.0	0.0	0.0	527.9	354.4
36.00	26.6	16.0	847.7	98.0	945.7	12.5	26.6	0.0	0.0	0.0	0.0	0.0	506.3	344.3
40.00	25.1	15.6	780.6	91.7	872.3	15.5	25.1	0.0	0.0	0.0	0.0	0.0	485.2	334.2
44.00	23.6	15.2	715.1	85.2	800.3	18.8	23.6	0.0	0.0	0.0	0.0	0.0	464.6	324.1
48.00	22.1	14.8	651.3	78.4	729.7	22.5	22.1	0.0	0.0	0.0	0.0	0.0	444.5	314.0
52.00	20.7	14.4	589.2	71.5	660.7	26.5	20.7	0.0	0.0	0.0	0.0	0.0	424.8	303.9
56.00	19.4	13.9	528.7	64.5	593.2	30.9	19.4	0.0	0.0	0.0	0.0	0.0	405.6	293.9
60.00	17.6	13.5	469.9	57.6	527.5	35.6	17.6	0.0	0.0	0.0	0.0	0.0	386.9	283.8
64.00	16.3	13.1	416.6	50.7	467.3	40.7	16.3	0.0	0.0	0.0	0.0	0.0	368.6	273.7
68.00	15.2	12.7	365.0	43.9	408.9	46.1	15.2	0.0	0.0	0.0	0.0	0.0	350.7	263.7
72.00	14.0	12.3	315.0	37.2	352.2	51.7	14.0	0.0	0.0	0.0	0.0	0.0	333.3	253.7
76.00	12.0	9.8	266.6	31.4	298.0	57.6	12.0	0.0	0.0	0.0	0.0	0.0	316.2	243.6
80.00	10.9	9.5	228.1	26.0	254.0	63.5	10.9	0.0	0.0	0.0	0.0	0.0	299.6	233.6
84.00	10.0	9.1	190.9	20.9	211.8	69.6	10.0	0.0	0.0	0.0	0.0	0.0	283.4	223.6
88.00	9.1	8.8	155.1	16.3	171.4	75.7	9.1	0.0	0.0	0.0	0.0	0.0	267.5	213.6
92.00	8.2	8.5	120.6	12.0	132.6	82.0	8.2	0.0	0.0	0.0	0.0	0.0	252.1	203.7
96.00	7.4	8.1	87.4	8.1	95.6	88.3	7.4	0.0	0.0	0.0	0.0	0.0	237.0	193.7
100.00	5.0	4.6	55.5	5.5	61.0	94.7	5.0	0.0	0.0	0.0	0.0	0.0	222.3	183.8
104.00	4.3	4.3	37.6	3.2	40.8	101.1	4.3	0.0	0.0	0.0	0.0	0.0	208.0	173.9
108.00	3.6	4.0	21.0	1.3	22.2	107.6	3.6	0.0	0.0	0.0	0.0	0.0	194.0	164.0
112.00	1.4	1.4	10.1	0.5	10.5	114.2	1.4	0.0	0.0	0.0	0.0	0.0	180.3	154.2
116.00	0.9	1.3	4.7	0.0	4.7	120.7	0.9	0.0	0.0	0.0	0.0	0.0	167.0	144.4
120.00	0.0	0.0	0.0	0.0	0.0	127.2	0.0	0.0	0.0	0.0	0.0	0.0	167.0	144.4

Factored Loads and Strengths

Site Number: 91542
Site Name: Bamford Sports Complex, FL
Engineer: BKL
Date: 02/22/06
Code Input: 2004 Florida Building Code & TIA/EIA-222-G

Elevation (ft)	$P_{u\ Bare}$ (k)	$V_{u\ Bare}$ (k)	$M_{u\ Bare}$ (k-ft)	$P_{u\ Ice}$ (k)	$V_{u\ Ice}$ (k-ft)	$M_{u\ Ice}$ (k-ft)	ϕM_n (k-ft)	Capacity (%)
0.0	56.3	25.5	2151.2	56.3	0.0	0.0	2062.8	104%
4.0	53.6	24.9	2044.7	53.6	0.0	0.0	1988.1	103%
8.0	51.0	24.4	1938.9	51.0	0.0	0.0	1913.5	101%
12.0	48.5	23.9	1834.0	48.5	0.0	0.0	1947.3	94%
16.0	46.0	23.5	1730.0	46.0	0.0	0.0	2024.7	85%
20.0	43.6	23.0	1627.1	43.6	0.0	0.0	1907.8	85%
24.0	41.2	22.4	1525.5	41.2	0.0	0.0	1839.5	83%
28.0	38.9	21.9	1425.3	38.9	0.0	0.0	1771.4	80%
32.0	36.8	21.4	1326.5	36.8	0.0	0.0	1703.6	78%
36.0	34.6	20.8	1229.4	34.6	0.0	0.0	1636.0	75%
40.0	32.6	20.3	1134.0	32.6	0.0	0.0	1568.5	72%
44.0	30.6	19.7	1040.4	30.6	0.0	0.0	1500.4	69%
48.0	28.7	19.2	948.7	28.7	0.0	0.0	1432.1	66%
52.0	26.9	18.7	858.9	26.9	0.0	0.0	1337.1	64%
56.0	25.2	18.1	771.1	25.2	0.0	0.0	1172.5	66%
60.0	22.9	17.6	685.7	22.9	0.0	0.0	879.1	78%
64.0	21.2	17.0	607.5	21.2	0.0	0.0	830.8	73%
68.0	19.7	16.5	531.5	19.7	0.0	0.0	782.2	68%
72.0	18.2	16.0	457.9	18.2	0.0	0.0	720.6	64%
76.0	15.5	12.8	387.4	15.5	0.0	0.0	649.6	60%
80.0	14.2	12.3	330.3	14.2	0.0	0.0	589.4	56%
84.0	13.0	11.9	275.4	13.0	0.0	0.0	532.7	52%
88.0	11.8	11.4	222.8	11.8	0.0	0.0	477.3	47%
92.0	10.6	11.0	172.4	10.6	0.0	0.0	416.0	41%
96.0	9.6	10.6	124.2	9.6	0.0	0.0	358.5	35%
100.0	6.5	6.0	79.3	6.5	0.0	0.0	331.7	24%
104.0	5.5	5.6	53.1	5.5	0.0	0.0	305.0	17%
108.0	4.7	5.2	28.9	4.7	0.0	0.0	278.5	10%
112.0	1.9	1.9	13.7	1.9	0.0	0.0	252.3	5%
116.0	1.1	1.6	6.1	1.1	0.0	0.0	186.3	3%
120.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0%

Site Name:
Site Number:
Engineer:
Date:



Design Base Loads (Unfactored)

Moment:		k-ft
Shear/Leg:		k
Compression/Leg:		k
Uplift/Leg:		k

Diameter of Caisson (d):		ft
Length of Caisson (l):		ft
Caisson Height Above Ground (h):		ft
Depth Below Ground Surface to Water Table (w):		ft
Unit Weight of Concrete:		pcf
Unit Weight of Water:		pcf
Tension Skin Friction/Compression Skin Friction:		
Allowable Compressive Bearing Pressure:		psf
Allowable Capacity Increase (Due to Transient Loads):		

Axial Capacities

Allowable Skin Friction/Depth

Depth (ft) Top	Depth (ft) Bottom	Allowable Skin Friction (psf)	Resistance per Depth (k)

Volume of Concrete:	589.0	ft^3
Weight of Concrete (Buoyancy Effect Considered):	56.5	k
Skin Friction Resistance:	0.0	k
Compressive Bearing Resistance:	130.9	k
Allowable Uplift per Leg (FS on Concrete is 1.5):	37.7	k
Allowable Compression per Leg:	130.9	k
Uplift Design Load/Uplift Capacity:	0.00	Result: Under Capacity
Compression Design Load/Compression Capacity:	0.33	Result: Under Capacity

Lateral Capacity

Lateral Bearing Pressure/Depth

Depth (ft) Top	Depth (ft) Bottom	Ultimate Lateral Bearing Pressure (psf)	Increment (psf/ft)

Total Lateral Resistance:	734.1	k
Inflection Point (Below Ground Surface):	24.17	ft
Design Overturning Moment (At Inflection Point):	2128.5	k-ft
Overturning Moment Capacity:	3421.7	k-ft
OTM Capacity / Design OTM Factor of Safety:	1.61	